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| 09/522,727 | 03/10/2000 | Wayne A Marasco | 47577-C | 5205 |

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| EXAMINER |
|---|
| ROARK, JESSICA H |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1644 | |

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32

Please find below and/or attached an Office communication concerning this application or proceeding.

| Offic Action Summary | Application No. 09/522,727 | Applicant(s) MARASCO ET AL. | |
|---|---|---|---|
| | Examin r Jessica H. Roark | Art Unit 1644 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Peri d f r Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *28 March 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-5 and 7-12* is/are pending in the application.

4a) Of the above claim(s) *8-12* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 March 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☒ The oath or declaration is objected to by the Examiner.

**Pri rity under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Applicant's amendment, filed 3/28/01 (Paper No. 13), is again acknowledged.
Claim 6 has been canceled.
Claim 7 has been amended.
*Claims* 1-5 and 7-12 *are pending.*

2. Applicant's election with traverse of Group I in Paper No. 11 is again acknowledged. Applicant's election with traverse of a species of a component in the pathway involving MHC Class I and a subspecies of MHC class I α chain are also acknowledged. The traversal is on the ground that examining all the target molecules at the same time would not present an undue burden. This is not found persuasive because as previously noted in Paper Nos: 20 and 6, each target molecule has a different structure requiring a different search.

The requirement is still deemed proper and is therefore made FINAL.

Claims 8-12 are withdrawn from further consideration by the Examiner, 37 C.F.R. § 1.142(b) as being drawn to a nonelected invention.

*Claims* 1-5 and 7 *are under consideration in the instant application.*

3. Sequence compliance: The CRF, paper copy of the Sequence Listing and Statement that the CRF and Sequence Listing are identical, filed 7/8/02, has been found acceptable and entered.

4. Provisional application 60/059,339 appears to provide adequate written support for the instant claims.

5. Formal drawings have been submitted which fail to comply with 37 CFR 1.84.
Please see the enclosed form PTO-948.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES
**Correction of Informalities -- 37 CFR 1.85**
New corrected drawings must be filed with the changes incorporated therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

**Timing of Corrections**
*Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.185(a). Failure to take corrective action within the set (or extended) period will result in* ***ABANDONMENT*** *of the application.*

Applicant is reminded to amend the Brief Description of the Drawings to reflect the numbering used in the Figures and to describe each individual panel.

6. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because non-initialed and/or non-dated alterations have been made to the oath or declaration. See 37 CFR 1.52(c).

7. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which Applicant may become aware in the specification.

8. Claim 1 and 5 are objected to because of the following informalities:
in claim 1 at line 4, there is a discrepancy between the singular and plural with respect to the recitation of "to a target molecules" - it appear that "molecules" should be singular; and
in claim 5 at line 2, MHC-"1" is recited when the art-recognized representation is -- MHC I -- (as used elsewhere in the specification.

Appropriate correction is required.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112.

> *The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.*

10. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) Claim 1 recites the limitation "said target receptor" in the last line. However, there is insufficient antecedent basis for this limitation in the claim because no "target receptor" is recited earlier in the claim, only a "target molecule".

It is suggested that Applicant amend the "target" to be consistent throughout the claim (and with the dependent claims) by changing the recitation of "target molecules" in line 4 of claim 1 to -- target receptor --.

B) Claims 1-3 are ambiguous in the recitation of "and/or ligand" because it is unclear if the ligand is the same as the target molecule/receptor, or if the antibody is to bind to both a target molecule and the ligand of the target molecule. Although dependent claims 2-3 further define the target receptor, this does not clarify the ambiguity with respect to the antibody specificity.

It is suggested that Applicant delete the phrase "and/or ligand" if the antibody is intended to simply bind a particular target molecule, or to provide alternate claim language that clearly sets forth what it is that the antibody binds.

C) Applicant is reminded that any amendment must point to a basis in the specification so as not to add new matter. See MPEP 714.02 and 2163.06.

11. While acknowledging that the elected invention involves a method wherein the target molecule is MHC class I alpha chain, the following rejections are set forth with respect to the breadth of the instant claims.

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

*(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

*(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.*

*The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).*

13. Claims 1-5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Marasco et al. (WO 94/02610, IDS #AA, see entire document).

Marasco et al. teach methods of intracellular binding of target molecules by expressing a gene encoding a single chain antibody in a cell (see entire document, e.g., Abstract and "Summary of the Invention" on pages 4-5). Marasco et al. also teach that this method can be applied to disrupt a function that is undesirable at a particular time, including the recognition of antigens by the immune system at times when an immune response is undesired, as in during transplantation of organs (see entire document, but especially page 16 lines 1-16). Marasco et al. further teach that undesired immune associated reactions can be down regulated by targeting MHC class I and MHC class II molecules (see especially page 16 at lines 1-16). MHC class I is itself a "component in the pathway involving MHC class I".

Although the elected invention of MHC class I alpha chain is not explicitly taught by Marasco et al., the alpha chain of class I is immediately envisaged by the ordinary artisan since the genus of molecules of which MHC class I is composed is only two species: the alpha chain and β2 microglobulin. (See In re Schauman, 572 F.2d 312, 197 USPQ 5 (CCPA 1978) and MPEP 2131.02.)

Therefore, the teachings of Marasco et al. anticipate the instant invention.

Applicant is reminded that no more of the reference is required than that it sets forth the substance of the invention. The claimed functional limitations would be inherent properties of a single chain antibody to MHC class I used in the method taught by Marasco et al.

14. Claims 1-5 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by any of the following:
Marasco et al. (U.S. Pat. No. 6,329,173, see entire document);
Marasco et al. (U.S. Pat. No. 6,004,940, see entire document); or
Marasco et al. (U.S. Pat. No. 5,965,371, see entire document).

Each applied reference has a common Inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

In each reference, Marasco et al. teach methods of intracellular binding of target molecules by expressing a gene encoding a single chain antibody in a cell (see entire document, e.g., Abstract and "Summary of the Invention" at columns 2-3 of the '173 and '371 references and at column 3 of the '940 reference). Marasco et al. also teach that this method can be applied to disrupt a function that is undesirable at a particular time, including the recognition of antigens by the immune system at times when an immune response is undesired, as in during transplantation of organs (see entire document, but especially column 7 of each reference). Marasco et al. further teach that undesired immune associated reactions can be down regulated by targeting MHC class I and MHC class II molecules (see especially column 7 at lines 18-36 of the '173 and '371 references, and at lines 4-22 of the '940 reference). MHC class I is itself a "component in the pathway involving MHC class I".

Although the elected invention of MHC class I alpha chain is not explicitly taught by any of the Marasco et al. references, the alpha chain of class I is immediately envisaged by the ordinary artisan since the genus of molecules of which MHC class I is composed is only two species: the alpha chain and β2 microglobulin. (See In re Schauman, 572 F.2d 312, 197 USPQ 5 (CCPA 1978) and MPEP 2131.02.)

Therefore, the teachings of each Marasco et al. reference anticipate the instant invention.

Applicant is reminded that no more of the reference is required than that it sets forth the substance of the invention. The claimed functional limitations would be inherent properties of a single chain antibody to MHC class I used in the method taught by each Marasco et al. reference.

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> *(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

16. Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marasco et al. (WO 94/02610, IDS #AA) in view of Germain et al. (Annu. Rev. Immunol. 1993; 11:403-50).

Claim 7, and claim 1 with respect to the elected invention, are drawn to a method of inhibiting an undesired immune associated reaction by transducing a cell with a gene encoding an antibody that when expressed in the cell will bind a target molecule that is the MHC class I alpha chain.

The teachings of Marasco et al. have been discussed supra.

The teachings of Marasco et al. differ from the instant invention by not explicitly teaching that it is the alpha chain of MHC class I that is bound by the antibody in the method.

Germain et al. review the art-recognized structure of the MHC class I and MHC class II molecules and their role in the stimulation of T cell-mediated immune responses (see entire document). Germain et al. teach that MHC class I is composed of two chains: the heavy chain which has three domains, α1-α3; and the light chain, β2 microglobulin. In addition, Germain et al. note that it is the α1 and α2 domains of the heavy chain (i.e., the alpha chain) that contacts peptide, and that β2 microglobulin provides structural support (see especially pages 405-406).

Germain et al. also teach that the art recognized that although MHC class I expression on the cell surface could be inhibited by blocking either the heavy/alpha chain or β2 microglobulin; that blocking β2 microglobulin did not eliminate all MHC class I from the surface of cells (e.g., see page 412-413, bridging paragraph).

Therefore, in view of the teachings of Marasco et al. to target MHC class I in order to suppress undesired immune responses, as discussed supra; it would have been obvious to the ordinary artisan at the time the invention was made to target the MHC class I alpha chain, either by itself, or in combination with targeting of β2 microglobulin. The ordinary artisan at the time the invention was made would have been motivated to utilize an antibody that bound the MHC class I alpha chain, either alone or in combination with other antibodies, in the method taught by Marasco et al. in order to ensure that all MHC class I was blocked and the undesired immune response involving MHC class I was fully inhibited. In view of the numerous anti-class I alpha chain antibodies known in the art at the time the invention was made, including antibodies to the relatively nonpolymorphic α3 domain, the ordinary artisan at the time the invention was made would have had a reasonable expectation that antibodies that bound the MHC class I alpha chain could have readily been utilized in the method of Marasco et al. Therefore, the invention as a whole was prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

17. Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being obvious over <u>any of the</u> following:
Marasco et al. (U.S. Pat. No. 6,329,173);
Marasco et al. (U.S. Pat. No. 6,004,940); or
Marasco et al. (U.S. Pat. No. 5,965,371) in view of
Germain et al. (Annu. Rev. Immunol. 1993; 11:403-50).

Each applied primary reference has a common Inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Claim 7, and claim 1 with respect to the elected invention, are drawn to a method of inhibiting an undesired immune associated reaction by transducing a cell with a gene encoding an antibody that when expressed in the cell will bind a target molecule that is the MHC class I alpha chain.

The teachings of each Marasco et al. reference have been discussed supra.

The teachings of each Marasco et al. reference differ from the instant invention by not explicitly teaching that it is the alpha chain of MHC class I that is bound by the antibody in the method.

Germain et al. review the art-recognized structure of the MHC class I and MHC class II molecules and their role in the stimulation of T cell-mediated immune responses (see entire document). Germain et al. teach that MHC class I is composed of two chains: the heavy chain which has three domains, α1-α3; and the light chain, β2 microglobulin. In addition, Germain et al. note that it is the α1 and α2 domains of the heavy chain (i.e., the alpha chain) that contacts peptide, and that β2 microglobulin provides structural support (see especially pages 405-406).

Germain et al. also teach that the art recognized that although MHC class I expression on the cell surface could be inhibited by blocking either the heavy/alpha chain or β2 microglobulin; that blocking β2 microglobulin did not eliminate all MHC class I from the surface of cells (e.g., see page 412-413, bridging paragraph).

Therefore, in view of the teachings of Marasco et al. to target MHC class I in order to suppress undesired immune responses, as discussed supra; it would have been obvious to the ordinary artisan at the time the invention was made to target the MHC class I alpha chain, either by itself, or in combination with targeting of β2 microglobulin. The ordinary artisan at the time the invention was made would have been motivated to utilize an antibody that bound the MHC class I alpha chain, either alone or in combination with other antibodies, in the method taught by Marasco et al. in order to ensure that all MHC class I was blocked and the undesired immune response involving MHC class I was fully inhibited. In view of the numerous anti-class I alpha chain antibodies known in the art at the time the invention was made, including antibodies to the relatively nonpolymorphic α3 domain, the ordinary artisan at the time the invention was made would have had a reasonable expectation that antibodies that bound the MHC class I alpha chain could have readily been utilized in the method of Marasco et al. Therefore, the invention as a whole was prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

18. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b). Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

19. Claims 1-5 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 and 18-22 of U.S. Pat. No. 6,329,173; claims 18-20 and 28-30 of U.S. Pat. No. 6,004,940; or claims 1-7, 20, 28, 41-48, 58-62, 71-81 and 91-100 of U.S. Pat. No. 5,965,371.

Although the conflicting claims are not identical, they are not patentably distinct from each other because each of the U.S. Patents claims methods for the intracellular binding of a target antigen by intracellular delivery of an antibody into a cell by delivering the nucleic acid encoding the antibody into the cell. Although the method steps are more detailed than claimed in the instant Application, the conflicting patents and the instant claims each utilize the same general method steps to achieve intracellular antibody binding of a target antigen.

The specification of each patent discloses at column 7 that MHC class I is a contemplated embodiment of the protein target antigen recited in the claims of each U.S. Patent. It would therefore have been obvious to the ordinary artisan at the time the invention was made to apply the method recited in each U.S. Patent to a target antigen that was MHC class I. In addition, column 7 of each U.S. Patent discloses that the recited method of intracellular binding of a target molecule that is MHC class I results in the inhibition of an undesired immune associated reaction, as recited in the instant claims. It would therefore have also been obvious to the ordinary artisan at the time the invention was made to apply the method recited in each U.S. Patent to inhibit an undesired immune associated reaction. The ordinary artisan would have been motivated to apply the method of intracellular binding of a target antigen that was MHC class I in order to inhibit undesired immune associated reactions in situations such a transplantation of organs, as also disclosed. Therefore, the instant claims appears to be an obvious variation of the claims recited in each U.S. Patent.

20. Claims 1 and 7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 and 18-22 of U.S. Pat. No. 6,329,173; claims 18-20 and 28-30 of U.S. Pat. No. 6,004,940; or claims 1-7, 20, 28, 41-48, 58-62, 71-81 and 91-100 of U.S. Pat. No. 5,965,371 in view of Germain et al. (Annu. Rev. Immunol. 1993; 11:403-50).

Claim 7, and claim 1 with respect to the elected invention, are drawn to a method of inhibiting an undesired immune associated reaction by transducing a cell with a gene encoding an antibody that when expressed in the cell will bind a target molecule that is the MHC class I alpha chain.

The claimed invention of each referenced U.S. Patent have been discussed supra.

The claimed inventions of each referenced U.S. Patent differ from the instant invention by not explicitly reciting that it is the alpha chain of MHC class I that is bound by the antibody in the method.

Germain et al. have also been discussed supra in the rejection of the instant claims under 35 USC 103(a).

As noted supra, it would have been obvious to the ordinary artisan at the time the invention was made to target the MHC class I alpha chain, either by itself, or in combination with targeting of β2 microglobulin. The ordinary artisan at the time the invention was made would have been motivated to utilize an antibody that bound the MHC class I alpha chain, either alone or in combination with other antibodies, in an obvious variation of the methods claimed by each U.S. Patent, as set forth supra, in order to ensure that all MHC class I was blocked and the undesired immune response involving MHC class I was fully inhibited. Therefore, the instant claims drawn to the elected invention of a method of inhibiting an undesired immune associated reaction by transducing a cell with a gene encoding an antibody that when expressed in the cell will bind a target molecule that is the MHC class I alpha chain appears to be an obvious variation of the above noted claims recited in each U.S. Patent.

21. Claims 1-5 and 7 are directed to an invention not patentably distinct from claims 1-11 and 18-22 of U.S. Pat. No. 6,329,173; claims 18-20 and 28-30 of U.S. Pat. No. 6,004,940; or claims 1-7, 20, 28, 41-48, 58-62, 71-81 and 91-100 of U.S. Pat. No. 5,965,371 for the reasons set forth supra.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302). Commonly assigned U.S. Pat. No. 6,329,173; U.S. Pat. No. 6,004,940; or U.S. Pat. No. 5,965,371, each discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee is required under 37 CFR 1.78(c) and 35 U.S.C. 132 to either show that the conflicting inventions were commonly owned at the time the invention in this application was made or to name the prior inventor of the conflicting subject matter. Failure to comply with this requirement will result in a holding of abandonment of the application.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications filed on or after November 29, 1999.

22. No claim is allowed.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica H. Roark, whose telephone number is (703) 605-1209. The examiner can normally be reached Monday to Friday, 8:00 to 4:30. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached at (703) 308-3973. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 1600 receptionist whose telephone number is (703) 308-0196.

Papers related to this application may be submitted to Technology Center 1600 by facsimile transmission. Papers should be faxed to Technology Center 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The CM1 Fax Center telephone number is (703) 305-3014.

Jessica Roark, Ph.D.
Patent Examiner
Technology Center 1600
September 24, 2002

PHILLIP GAMBEL, PH.D
PRIMARY EXAMINER
TECH CENTER 1600
9/24/02